

**REMARKS**

Claims 1-28 are all the claims pending in the application.

***Claim Rejections under 35 U.S.C. § 102 and 103***

Claims 1, 4-6, 9-11, 13, 17-19, 21 and 25-28 are rejected under 35 U.S.C. 102(e) as allegedly being anticipated by Liu. Claims 2, 7, 12 and 20 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Liu in view of Ogier (U.S. Patent No. 7,031,288 B2). Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Liu in view of Rhee (U.S. Publication No. 2003/0099221 A1). Claims 14, 16, 22 and 24 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Liu in view of Riihinen et al. (U.S. Patent No. 6,697,331 B1; hereinafter “Riihinen”). Claims 15 and 23 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Liu in view of Riihinen as applied to claim 11, 14, 19 and 22 above, and further in view of Zhu et al. (U.S. Patent No. 5,768,527; hereinafter “Zhu”). For at least the following reasons, Applicant respectfully traverses the rejection.

**Independent Claim 1**

Claim 1 is amended and recites a system for reliably broadcasting a data packet under an ad-hoc network environment, the system comprising, *inter alia*, a comparing unit which compares a first relay node sequence number with a second relay node sequence number, the first relay node sequence number being contained in a management packet received by at least one node transmitting the data packet, the second relay node sequence number being stored in a neighbor table of the at least one node, and a memory unit which stores information of the data packet before the data packet is transmitted, wherein the information of the data packet comprises the second relay node sequence number.

The Examiner acknowledges that Liu fails to teach or suggest at least the claimed feature of a memory unit (Office Action dated July 22, 2008, pages 12-13). Instead, the Examiner relies on Rhee as allegedly disclosing this feature.

Rhee discloses that when a base station receives a hello packet, in an ad-hoc wireless network, the base station responds by generating and broadcasting a confirmation packet (paragraphs 2, 51). The confirmation packet “is also propagated throughout the entire wireless network 10 by flooding” (paragraph 51). Rhee continues to disclose that “[along] the route that the confirmation packet takes through the wireless network 10, repeaters keep track of which node sent them the confirmation packet, i.e., an immediately preceding network node along the route” (paragraph 52). Specifically, Rhee discloses that “[each] repeater stores a pointer in memory that points to this node” (paragraph 52). That is, Rhee merely discloses a repeater which stores in its memory a pointer to a previous node from which the repeater receives a confirmation packet.

Neither Liu nor Rhee, independently or in combination, teach or suggest a memory unit which stores information of a data packet prior to transmitting the data packet, wherein the information of the data packet comprises a second relay node sequence number that is used by a comparison unit to perform a comparison. Furthermore, neither Ogier, Riihinen nor Zhu, independently or in combination, address the deficiencies of Liu and Rhee noted above.

Accordingly, Applicant respectfully submits that claim 1 is patentable over the applied references. Applicant further submits that claims 2-5 and 28 are patentable at least by virtue of their dependency on claim 1.

Independent Claim 6

Claim 6 is amended and recites one or more features analogous to those discussed above with respect to claim 1. Accordingly, Applicant respectfully submits that claim 6 is patentable at least for reasons analogous to those given above with respect to claim 1. Applicant further submits that claims 7-10 are patentable at least by virtue of their dependency on claim 6.

Independent Claim 11

Independent claim 11 is amended and recites a method for reliably broadcasting a data packet under an ad-hoc network environment, the method comprising, *inter alia*, broadcasting the data packet to neighboring nodes, comparing a first relay node sequence number with a second relay node sequence number, the first relay node sequence number being contained in a management packet received from the neighboring nodes, the second relay node sequence number being stored in a neighbor table of a node broadcasting the data packet, and storing information of the data packet before the data packet is transmitted, wherein the information of the data packet comprises the second relay node sequence number.

The Examiner acknowledges that Liu fails to teach or suggest at least the claimed feature of storing information of the data packet in the neighbor table (Office Action dated July 22, 2008, pages 9-10). Instead, the Examiner relies on Ogier as allegedly disclosing this feature.

Ogier discloses that for reliable transmission, “[each] broadcast control packet [(i.e. alleged claimed data packet)] is identified by a sequence number that is incremented each time a new broadcast control packet is transmitted” (col. 15, lines 39-41). Ogier further discloses that “[each] node maintains a neighbor table, which has an entry for each known neighbor node and stores state information for that neighbor node” (col. 27, lines 58-62). Specifically, “[an] entry

for a neighbor node B, for example, contains the following variables: state (B)... hold\_time(B)... [and] counter(B)” (col. 27 line 62 - col. 28, line 6). Ogier does not teach or suggest storing information on the broadcast control packet (i.e. the alleged claimed data packet), much less wherein the information comprises a second relay node sequence number that is used to perform a comparison.

Neither Liu nor Ogier, independently or in combination, teach or suggest all the features recited in claim 11. Furthermore, neither Rhee, Riihinen nor Zhu, independently or in combination, address the deficiencies of Liu and Ogier noted above.

Accordingly, Applicant respectfully submits that claim 11 is patentable over the applied references. Applicant further submits that claims 12-18 are patentable at least by virtue of their dependency on claim 11.

#### Independent Claim 19

Claim 19 is amended and recites one or more features analogous to those discussed above with respect to claim 1. Accordingly, Applicant respectfully submits that claim 19 is patentable at least for reasons analogous to those given above with respect to claim 1. Applicant further submits that claims 20-27 are patentable at least by virtue of their dependency on claim 19.

#### ***Conclusion***


In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.


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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

  
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